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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,416	01/15/2004	Soo Young Oh	0465-1798PUS1	3383
2292 7590 06/05/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER HECKERT, JASON MARK				
ART UNIT 1792		PAPER NUMBER		
NOTIFICATION DATE 06/05/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/757,416

Applicant(s)

OH ET AL.

Examiner

JASON HECKERT

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 15-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/25/08 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claim 1-14 have been considered but are moot in view of the new ground(s) of rejection.
3. As the examiner has shown, steam generators are known to be implemented into washing machines. Nakamura shows such a device but is silent to the presence of a drain. However, drains are very common in steam generation for the purpose of allowing the contents of the chamber to be emptied. Additionally, some drains are known to prevent overfilling. Morton shows such a drain 40 in a steaming apparatus. Morton does not teach a siphon cap, however such devices are known in the art. Newly presented references of Edwards and Lund show siphon caps covering drain parts that allow the drainage of fluids to a level below the siphon cap.
4. It is not clear in the applicant's claims what is meant by "a water supply level". This could refer to many things. It could be the location of the water supply port. It could also refer to the instantaneous level of supplied water, which is conditional. It

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could also refer to the maximum height of supplied water. Furthermore, it is not clear what is meant by "drain water inside to a level below a water supply level". This could refer to draining the remaining water inside the container to a lower level. But it could also mean, as in the case of Morton, draining water inside the container to a lower level outside the container. Surely the water that is removed by drain 40 of Morton leaves a lower level in the vicinity of 36, which is lower than water supply parts 52 and 54.

5. The applicant also claims in claim 3 that the siphon pipe is "arranged to be penetrated". However, the pictures do not show the pipe itself being penetrated by anything. The pictures do show the opposite, in that the pipe penetrates a bottom portion of the container.

6. Additionally, as depicted in figure 4, the applicant's invention CANNOT drain all of the water from the container. It can only drain the water down to the bottom of the siphon cap. Therefore claims 10, 13, and 14 are not enabled.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 10, 13, 14 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As depicted in figure 4, the applicant's invention CANNOT drain all of the

water from the container. It can only drain the water down to the bottom of the siphon cap. Therefore claims 10, 13, and 14 are not enabled because they claim draining "substantially all" of the water. However, the apparatus does not allow for this to occur.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear in the applicant's claims what is meant by "a water supply level". This could refer to many things. It would be the location of the water supply port. It could also refer to the instantaneous level of supplied water, which is conditional. It could also refer to the maximum height of supplied water. Furthermore, it is not clear what is meant by "drain water inside to a level below a water supply level". This could refer to draining the remaining water inside the container to a lower level inside the container. But it could also mean draining water inside the container to a lower level (such as outside the container).

11. The applicant also claims in claim 3 that the siphon pipe is "arranged to be penetrated". However, the pictures do not show the pipe itself being penetrated by anything. The pictures do show the opposite, in that the pipe penetrates a bottom portion of the container.

Claim Rejections - 35 USC § 103

12. Claims 1-2, 8-11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Morton. Nakamura et al. disclose a steam generator for

a washing machine comprising a heater 6. The generator exhausts steam into a drum. Nakamura et al. does not disclose that the container has a drain. Morton discloses a sealed humidifier (col. 3 lines 20 – 22) with a drainpipe 34 with exit 40. This pipe has an upper opening disposed in the container higher than the water level 28 and has a lower end 36 positioned outside the container. Water in the container that enters this exit, drains to a level below the upper inlet, specifically in the vicinity of 36, which is at the bottom. The drain operates when water is at a certain level, specifically a level higher than the exit 40. Morton's drainpipe operates like a siphon, with the water flowing from the higher opening out the lower opening and can therefore be considered a siphon pipe. It would have been obvious at the time of the invention, to modify the steam generator of Nakamura et al. and provide a sealed container with a drain, as taught by Morton, in order to prevent leaks yet allow for the removal of residual water.

13. In regards to claims 10 and 14 it is well known that if it is desired to drain all fluid from a system, to locate the drain inlet at the bottom of a tank or receptacle, such as in a common sink. Gravity can be utilized to remove fluid without the addition of another device or power source. Thus, locating a drain inlet near the bottom is considered to be obvious to one skilled in the art for removing all of the contained fluid. Furthermore, altering the location of the drain exit 40 is nothing more than a rearrangement of parts, or a change in height of tubing 34, a cause effective variable. Rearrangement of parts was held to have been obvious. *In re Japikse* 86 USPQ 70 (CCPA 1955). It is well settled that determination of optimum values of cause effective variables such as height of drain tubing, is within the skill of one practicing the art. *In re Boesch*, 205 USPQ 215

(CCPA 1980). Thus, it would have been obvious at the time of the invention to modify the location of the drain inlet, to allow for the removal of fluids to a desired level.

14. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Morton and further in view of Edwards or Lund. Neither Morton nor Nakamura et al. disclose a siphon cap covering a drainpipe. Edwards shows a sleeve or cap 11 covering a drainpipe 21. Ribs 22 maintain a distance between the pipe and the sleeve. The top of the sleeve covers the siphon pipe. In action, the device pulls a siphon that allows water to drain below the level of the siphon cap. Lund shows a similar drain system. A pipe 5 is covered by a capping plate 6. This allows drainage to a level until air enters the system again. Thus, siphon caps covering drain pipes were known at the time of invention for automatic level control. In regards to claim 5, Morton discloses said features of a drainpipe as stated above. It would have been obvious at the time of the invention, to modify Nakamura et al. with the features of Morton, as stated above, and further include a siphon cap, as taught by Edwards and Lund, in order to provide automatic level control within the device.

15. Claims 12-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Morton and further in view of Babuin et al. or Kovich et al. Nakamura and Morton do not disclose a recirculation system. Recirculation systems are well known in laundry machines. Babuin discloses a recirculation pump 17 that circulates wash water back to the drum. Kovich discloses a recirculation system where pump 38 pumps wash liquid from the tub through conduit 74 back into the wash basket via a nozzle 78. Thus, it would have been obvious at the time of the invention to modify

Nakamura in view of Morton, as stated above, and further include means for spraying exhausted water from the tub back into the laundry drum as shown by Babuin and Kovich.

16. In regards to claims 13 it is well known that if it is desired to drain all fluid from a system, to locate the drain inlet at the bottom of a tank or receptacle, such as in a common sink. Gravity can be utilized to remove fluid without the addition of another device or power source. Thus, locating a drain inlet near the bottom is considered to be obvious to one skilled in the art for removing all of the contained fluid. Furthermore, altering the location of the drain exit 40 is nothing more than a rearrangement of parts, or a change in height of tubing 34, a cause effective variable. Rearrangement of parts was held to have been obvious. *In re Japikse* 86 USPQ 70 (CCPA 1955). It is well settled that determination of optimum values of cause effective variables such as height of drain tubing, is within the skill of one practicing the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980). Thus, it would have been obvious at the time of the invention to modify the location of the drain inlet, to allow for the removal of fluids to a desired level.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

JMH